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## HUMAN RESPONSE RESEARCH UPDATE

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# **U.S. ARMY CERL**

## **HUMAN RESPONSE RESEARCH UPDATE**

**METHODOLOGY**

**SOURCES**

**FACILITIES**

**RESULTS**

## **METHODS**

- **PAIRED COMPARISON**
- **BAND-LIMITED WHITE NOISE**
- **HAYSTACK PATTERN**
- **VARIABLE LENGTH**

# **SOURCES**

- **HELICOPTER - 500Hz OCTAVE BAND  
1 MINUTE DURATION  
VARIABLE 10 dB DOWN**
- **BLAST - 200 - 1500Hz WHITE NOISE  
1/2 SECOND DURATION  
FIXED SHAPE**

# **INSTRUMENTATION**

- **COMPUTER CONTROLS**
  - **TIMING (LIGHTS)**
  - **CONTROL SOURCE**
  - **MICROPHONE GAINS**
  - **DATA ANALYSES**
- **MACHINE READ QUESTIONNAIRES**

## **TESTS**

- **HELICOPTER**
  - CHAMPAIGN - UH1H - 200 SUBJECTS
  - CALIFORNIA - UH1H, UH1N, CH-46, CH-53 A/D  
CH53 E, AH-1G  
- 600 SUBJECTS
- **BLAST**
  - CHAMPAIGN - 5 HOUSE CONFIGURATION  
300 SUBJECTS
  - GRAFFENWOHR W. GERMANY  
2 HOUSE CONFIGURATIONS  
150 SUBJECTS
  - ABERDEEN PROVING GROUNDS  
NEW

## **RESULTS**

- **RATTLE**
- **LOUDNESS**
- **DETECTION (BACKGROUND)**

# **NEW FACILITY ABERDEEN PROVING GROUNDS**

- WOOD HOUSE
- MASONRY HOUSE (GERMAN) EACH WITH 2 "APARTMENTS", GERMAN & AMERICAN
- OUTDOORS

5 LOCATIONS TOTAL (25 SUBJECTS)

★ NO NEAR NEIGHBORS

## **OUR TESTS**

- BLAST NOISE
  - WINDOWS
  - WALLS

# **APG - SOURCES**

- IN LINE WITH CROSS-RUNWAY
  - HELICOPTERS - FLYOVER, TAKE OFF, LAND
  - BLAST
  - FIXED-WING - FLYOVER, TAKE OFF, LAND
  - VEHICLES (PARTIAL)
  - ANY RECORDED SOURCES
- FUTURE USES OF APG
  - COMPARATIVE SOURCES
- NEVADA SITE

## REFERENCES

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